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ABSTRACT

School finance is basic to understanding and improving the condition of rural education. Information necessary for financial planning and policy development at the state and local levels is stored in large computer readable data bases and needs to be accessed. Pertinent data elements need to be extracted from the data base and relationships among the data need to be identified. A study conducted in Illinois in 1987-88 established a multidimensional definition of rural education for use with large computer readable data bases. A unit school district operating grades K-12 was classified as rural if it met at least four of the following five criteria: (1) enrollment of less than 1,350; (2) pupil sparsity of less than 15 pupils per square mile; (3) assessed valuation of at least 25% from farmland or mineral properties; (4) assessed valuation of at least 25% from farmland; and (5) location outside a Standard Metropolitan Statistical Area. Although rural and small nonrural schools may be similar in many ways, they are dissimilar in ability to access revenues for education and in their efforts to support educational programs. When effort to provide educational programs was measured not by property tax rates but by ratio of operating expenditures per pupil to median family income, rural school districts made a proportionately greater effort. School aid formulas which include income in the wealth measure would provide increased benefits to rural school districts with lower median family incomes. Proposed two-stage state-local finance systems would provide equalization of resources across all school districts. Use of the definition of a rural school district as established in this study to access computer-readable information would facilitate further efforts to describe and improve the condition of rural education. Statistical information is presented in 12 tables. (ALL)

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Rural School Finance: A Critical Analysis of Current Practice in Illinois

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Introduction

School finance is basic to understanding and improving the condition of rural education. Financial planning for rural education must consider problems associated with low school and school district enrollment, population sparsity, diverse pupil needs, fiscal equity of aid formulas, and composition of the property tax base. Information that may be basic to financial planning and policy development at the local and state levels may be stored in large computer readable data bases.

For purposes of educational and financial planning, data from the 1980 U.S Census and the 1986 Illinois Income Tax by school districts should be of some significance. In addition, data bases which contain relevant information for each of approximately 1000 Illinois school districts (three different types -- elementary (K-8), secondary (9-12), and unit (K-12)) for five consecutive years (1980-1985) were as follows:

1. Property Tax Files (by class of property -- residential, farm, commercial, industrial, railroad, and minerals)
2. Annual Financial Reports (2000 line-item revenue and expenditure entries)
3. Annual State Aid Claims (data critical to state aid computations)
4. Assessed Valuation and Tax Rates
5. Public School District Profiles (information which is of frequent interest to a variety of persons -- attendance, absenteeism, personnel, school district variables, geographic size and other related variables)

The purpose of this paper is to report the findings of efforts to access large computer readable data bases, extract pertinent data elements and to determine relationships essential to financial planning and policy development. The paper will present the results of research activities (1) to develop alternative definitions of rural education for use in the analysis of large data bases, (2) to determine the relationship between educational spending and component property wealth in rural school districts in Illinois, and (3) to identify potential trends in component property wealth in Illinois.

(This paper is a minor revision of a report submitted to the Rural Education Project: A Contract of Research, Evaluation and Policy Studies with the North Central Regional Educational Laboratory, June 1988.)

Critical to the analysis of large computer-readable data bases is a clear and concise definition of a rural school or rural school district. This study proposes alternative definitions of rural education based on geographic area, student enrollment, composition of property tax base, and census classification and to report results associated with the diverse classifications.

Rural School Districts: An Operational Definition

Critical to the analysis of large computer-readable data bases is a clear and concise definition of a rural school or a rural school district. A review of the literature revealed references to numerous dimensions. For example, Barker and Muse in a 1983 study of rural schools systems collected descriptive data on K-12 and 1-12 public school districts which enrolled 900 students or less (Barker, 1985). The State Education Department of New York identified rural school districts as those having a density of 25 pupils or less per square mile (Monk & Stutz, 1981). Helge (1986) subscribes to the following:

> A district is considered rural when the number of inhabitants is fewer than 150 per square mile or when located in counties with 60% or more of the population living in communities no larger than 5,000 inhabitants. Districts with more than 10,000 students and those within a standard metropolitan statistical area (SMSA), as determined by the U. S. Census Bureau, are not considered rural. (p. 101)

Jess (1981) used two enrollment categories to describe rural school districts -- those districts having enrollment under 300 pupils and those districts having enrollment under 1000 pupils -- with the condition that districts are located in rural areas with populations of fewer than 2,500 residents in their communities and surrounding open countrysides. Edington and Edington (1982) in a review of factors used by the states in funding rural education found that pupil enrollment, number of teachers, population sparsity, isolation and local effort were among the factors used in determining eligibility for special funding.

The absence of a generally accepted working definition of rural schools or rural school districts is evident from research agenda submitted to the U.S. Department of Education by the Rural Education Association (Rural Education News, 1985). The fourth ranked research theme was the development of a "taxonomy of rural education" which would include the following:

1. Determine what constitutes a rural school
2. Characteristics of rural schools as perceived at national, regional, state, and local levels
3. Classification of rural schools by (a) size, (b) geographic region, (c) degree of remoteness and/or isolation, (d) etc.

4. Demographic make-up of students who attend rural schools
5. Determine where America's rural schools are located
6. Identify definitions of rural, remote, isolated and small schools at national, regional, state and local levels
7. Differences between rural and urban schools

Clearly, this brief review of characteristics of rural schools indicates that any definition of rural education should include reference to small enrollments, sparsely populated areas and geographic location in isolated rural areas. An objective of this study was to develop a concise definition of a rural school or rural school district that could be used with large computer-readable data bases. Hence, information essential to defining a rural school or rural school district must be readily available from existing data bases and should not require additional survey data. Therefore, this study proposes to provide an operational definition of rural education that addresses five dimensions -- (1) enrollment, (2) ratio of assessed valuation of agricultural property to total assessed valuation, (3) ratio of assessed valuation of agricultural and mineral property to total assessed valuation, (4) number of pupils per square mile, and (5) whether or not the school district was located within a Standard Metropolitan Statistical Area (SMSA) as defined by the Bureau of Census. The five dimensions are defined as follows:

Enrollment -- a school district met one condition of "ruralness" if the enrollment was below a specified number. Otherwise, the school district met one condition of "urbanness." For this study, the cut points were 1350 students in average daily attendance for K-12 districts, 900 for K-8 districts, and 350 for 9-12 districts. (Source: Annual State Aid Claims)

Sparsity -- a school district met one condition of "ruralness" if the density was below a specified number. Otherwise, the school district met one condition of "urbanness." For this study, the cut points were 15 pupils per square mile for K-12 districts, 10 for K-8 districts, 5 for 9-12 districts. (Source: Public School District Profiles)

Agricultural -- a school district met one condition of "ruralness" if the ratio of assessed valuation of farmland to total assessed valuation was greater than or equal to .25 (.25 percent). If the ratio of assessed valuation of farmland to total assessed valuation was less than .25, then the school district met one condition of "urbanness." (Source: Property Tax Files)

Agricultural and Mineral -- a school district met one condition of "ruralness" if the ratio of assessed valuation of farmland and minerals to total assessed valuation was greater than or equal to .25 (.25 percent). If the ratio of assessed valuation of farmland and minerals to total assessed valuation was less than .25, then the school district met one condition of "urbanness." (Source: Property Tax Files)

Isolation -- a school district met one condition of "ruralness" if it was not located within an SMSA. If a school district was located within an SMSA, then the school district met one condition of "urbanness." (Source: U.S. Census Data)

Matrices were developed for each of the three types of Illinois school districts -- elementary school districts, encompassing grades K-8; high school districts, grades 9-12; and unit school districts, grades k-12 -- to indicate the number of school districts possessing "ruralness" by each of the five dimensions. (Refer to tables 1-3.)

An analysis of table 1 indicates that 252 of the 372 elementary school districts (67.7 per cent) were classified as "rural" using the dimension of enrollment. However, only 32.5 per cent (121 of 372) were classified as rural on the basis of sparsity of students per square mile. Very little difference was noted in school districts classified as rural when ratios of assessed valuation of agricultural property to total assessed valuation or assessed valuation of agricultural and mineral properties to total assessed valuation were used. Approximately 30 per cent of elementary school districts were classified as rural when farmland and farmland/mineral property values were considered. Of the 372 elementary school districts, 138 (37.1 per cent) were located outside SMSAs and were classified as rural on this dimension.

Table 1

Ruralness of Elementary School Districts
by dimension of ruralness

	Number of districts by times classified as rural						Total No. Dists.
	0	1	2	3	4	5	
Enrollment	0	108	22	12	17	93	252
Sparsity	0	0	3	10	15	93	121
Farmland	0	0	0	2	17	93	113
Farmland/mineral	0	0	0	2	18	93	113
Isolation	0	11	19	10	5	93	138
No. of districts by degree of ruralness	108	119	22	12	18	93	372

Table 1 provides information regarding the consistency with which a dimension is useful in identifying "rural school districts." For example, 108 of the 252 school districts which were classified as rural on the basis of enrollment failed to be classified as rural on any of the other four dimensions. The number of districts by degree of ruralness provides summary information regarding the number of school districts which met from zero to five definitions of "ruralness." Table 1 indicates that 108 of the 372 elementary school districts failed to be classified as rural under any of the five definitions. Hence, this group of 108 elementary school districts constitutes the group of elementary school districts with the greatest degree of "urbanness." Elementary school districts which were classified as rural on 4 or more definitions possess the greatest degree of "ruralness." This group contains 111 (4, N=18; 5, N=93) elementary school districts. It is these two groups, those with the greatest "urbanness" and the greatest "ruralness" that will be targeted for further analysis.

Examinations by a panel of experts revealed that misclassifications occurred when elementary school districts met only 1, 2 or 3 definitions of ruralness. Examination of school districts that met 2 or 3 definitions of ruralness revealed that some districts could be classified as rural or urban when minimal additional information was considered. Elementary school districts that met only 1 definition for rural classification were from one of two groups -- small enrollment school districts that met no other definition, (108 districts); or school districts located outside a SMSA that met no other definition, (11 districts). A decision was made to eliminate from further analysis those school districts that met 1, 2 or 3 definitions of ruralness. However, a decision was made to retain for further analyses a group of

school districts that were classified as small and nonrural. Therefore, a comparative analysis of urban, rural and small nonrural school districts will be presented. Tables 2 and 3 provide similar ruralness/urbanness information for high school and unit school districts.

Table 2

Ruralness of High School Districts
by dimension of ruralness

	Number of districts by times classified as rural						Total No. Dists.
	0	1	2	3	4	5	
Enrollment	0	0	1	2	3	25	31
Sparsity	0	0	1	3	11	25	40
Farmland	0	0	1	0	11	25	37
Farmland/mineral	0	0	1	1	11	25	38
Isolation	0	8	2	3	8	25	46
No. of districts by degree of ruralness	71	8	3	3	11	25	121

Table 3

Ruralness of Unit School Districts
by dimension of ruralness

	Number of districts by times classified as rural						Total No. Dists.
	0	1	2	3	4	5	
Enrollment	0	5	7	13	35	182	242
Sparsity	0	2	9	17	37	182	247
Farmland	0	0	2	6	40	182	230
Farmland/mineral	0	0	3	7	41	182	232
Isolation	0	20	16	14	11	182	243
No. of districts by degree of ruralness	37	27	18	19	41	182	324

As a result of using the five dimensional definition of "ruralness" or "urbanness", tables 1-3 reveal that the number of rural, urban and small school districts for further study include the following:

	Rural	Urban	Small
Elementary school districts	111	108	142
High school districts	36	71	3
Unit school districts	223	37	25

Summary statistics for the three types of school districts are presented in tables 4-6 of Appendix A. Summary data for each subgroup includes the number of school districts, the number of students, the number of buildings, total area encompassed by the subgroup, and the 1980 census population for the specified subgroupings. In addition, summaries of T-tests of urban vs. rural and rural vs. small school districts for the three types of districts are presented in tables 7-10 of Appendix A. (Note: The small number of small high school districts does not permit a comparative analysis of differences between small high school districts and rural high school districts.)

Components of Property Wealth

Components of property wealth were defined as equalized assessed valuation per pupil for each of the following property tax classifications: (1) residential; (2) farm; (3) commercial; (4) industrial; (5) railroad; and (6) minerals. Definitions of the various classifications as provided by the Illinois Department of Revenue are as follows:

Residential properties -- Residential property includes all property used or developed primarily for residential purposes, improved or unimproved, and located within or outside boundaries of a city or village.

Commercial properties -- Commercial property includes all property used for stores, apartments over 6 units, hotels, office buildings, gas stations, public garages, and similar properties.

Industrial properties -- Industrial property includes all property used by manufacturing plants, warehouses, grain elevators, and similar properties.

Railroad properties -- Railroad property includes all railroad property which is assessed locally.

Farm properties -- Farm property includes rural property, improved and not improved with buildings.

Mineral properties -- Mineral properties include mineral rights for coal, oil-gas, limestone, sand-gravel and other minerals.

An additional element of property wealth was defined as a function of corporate personal property tax replacement payments, which may be defined in the following terms:

Corporate Personal Property Replacement Equalized Assessed Valuation (CPPRV) -- Corporate Personal Property Replacement Equalized Assessed Valuation is a contrived measure of wealth which is defined as the quotient of corporate personal property replacement payments during a given year and the 1977 operating tax rate. (Corporate personal property replacement payments are in lieu of taxes paid on 1978 and prior years Corporate Personal Property assessed valuation. The Illinois Constitution of 1970 required that the corporate personal property tax be abolished and a new tax enacted which would not transfer the tax burden to other classes of taxpayers. In 1979, the Illinois General Assembly passed House Bill 2569 and imposed a tax upon corporations, partnerships and utilities to replace corporate personal property tax revenues.)

Findings

The findings from this study speak directly to issues which are pertinent to understanding and improving rural education. First, a multi-dimensional definition of rural education was proposed for use with large computer readable data bases. A unit school district operating grades K-12 was classified as rural if it met at least four of the following five criteria: enrollment of less than 1350, pupil sparsity of less than 15 pupils per square mile; at least 25 percent of assessed valuation was from farmland; at least 25 percent of assessed valuation was from farmland or mineral properties; and located outside a Standard Metropolitan Statistical Area. (Proportionate limits were established for elementary and high school districts.) Second, comparative analyses were made between rural and urban and between rural and small nonrural school districts to determine how rural school districts differ from the two groups of districts. Third, information sources were identified for access and future research regarding the condition of rural education and rural school finance. Fourth, a brief description of the condition of rural school finance is presented for the development of policy making for the improvement of rural education.

Classifications of school districts

Rural School Districts.

1. The number of school districts which were classified as rural were 111 elementary, 36 high and 223 unit school districts.
2. The average enrollment was 171 for elementary, 257 for high and 653 for unit school districts.
3. The average geographical size was 48 square miles for elementary, 118 square miles for high and 117 square miles for unit school districts.
4. The average number of building utilized was 1.1 in elementary, .97 in high (non-operating districts are permissible) and 3.2 in unit school districts.
5. The average operating expenditure per pupil was $2,947 in elementary, $4,245 in high and $2,907 in unit school districts.
6. The median family income was $20,186 in elementary, $19,152 in high and $19,288 in unit school districts.
7. The average operating tax rate for general state aid purposes was 1.93 percent in elementary, 1.69 percent in high and 2.93 percent in unit school districts.
8. The average real property wealth per pupil for state aid purposes was $80,958 in elementary, $110,370 in high and $46,432 in unit school districts.
9. The average ratio of operating expenditures per pupil to median family income was .15 in elementary, .23 in high and .15 in unit school districts.
10. The average ratio of average daily attendance to 1980 census population was .12 in elementary, .05 in high and .17 in unit school districts.

Urban School Districts.

1. The number of school districts which were classified as urban were 108 elementary, 71 high and 37 unit school districts.
2. The average enrollment was 2,288 for elementary, 3,127 for high and 26,680 (including Chicago) for unit school districts.
3. The average geographical size was 10 square miles for elementary, 35 square miles for high and 56 square miles for unit school districts.

4. The average number of building utilized was 6.0 in elementary, 2.2 in high and 45 (including Chicago) in unit school districts.
5. The average operating expenditure per pupil was $3,347 in elementary, $4,833 in high and $3,202 in unit school districts.
6. The median family income was $28,461 in elementary, $27,847 in high and $25,762 in unit school districts.
7. The average operating tax rate for general state aid purposes was 2.31 percent in elementary, 1.84 percent in high and 3.41 percent in unit school districts.
8. The average real property wealth per pupil for state aid purposes was $92,331 in elementary, $139,664 in high and $46,850 in unit school districts.
9. The average ratio of operating expenditures per pupil to median family income was .12 in elementary, .18 in high and .13 in unit school districts.
10. The average ratio of average daily attendance to 1980 census population was .11 in elementary, .05 in high and .16 in unit school districts.

Small Nonrural School Districts.

1. The number of school districts which were classified as rural were 142 elementary, 3 high and 39 unit school districts.
2. The average enrollment was 450 for elementary, 240 for high and 912 for unit school districts.
3. The average geographical size was 10 square miles for elementary, 74 square miles for high and 67 square miles for unit school districts.
4. The average number of building utilized was 1.8 in elementary, 1.0 in high and 3.6 in unit school districts.
5. The average operating expenditure per pupil was $3,484 in elementary, $5,612 in high and $3,090 in unit school districts.
6. The median family income was $26,832 in elementary, $18,780 in high and $20,746 in unit school districts.
7. The average operating tax rate for general state aid purposes was 1.86 percent in elementary, 1.25 percent in high and 2.66 percent in unit school districts.

8. The average real property wealth per pupil for state aid purposes was $140,180 in elementary, $515,935 in high and $68,221 in unit school districts.
9. The average ratio of operating expenditures per pupil to median family income was .13 in elementary, .28 in high and .15 in unit school districts.
10. The average ratio of average daily attendance to 1980 census population was .10 in elementary, .06 in high and .16 in unit school districts.

Comparative Analysis of Rural, Urban and Small Nonrural School Districts.

1. Within similar types of school districts, expenditures per pupil are somewhat lower in rural school districts than in urban or small nonrural school districts. The difference ranges from $200 in unit school districts to $600 in high school districts.
2. Within like types of school districts, median family income is generally less in rural school districts than in urban or small nonrural school districts. For elementary school districts, median family income is approximately $6,000 less than that in urban and nonrural school districts. Due to the small number of cases for small nonrural school districts values are suspect for high school districts. Median family income in small nonrural districts is similar to that in rural school districts and in both cases median family income is approximately $5,000 less than in urban unit school districts.
3. Traditionally, the operating tax rate has been used as a measure of effort to support an educational program. The findings indicate that within district types, urban school districts have the highest tax rates (or make the greatest effort) and small nonrural school districts have the lowest tax rates (or make the least effort).
4. Traditionally, the equalized assessed valuation per pupil has been used as a measure of ability to support an educational program. The findings indicate that within district types, rural school districts have the lowest assessed valuation per pupil (have the least ability) and small nonrural school district have the highest assessed valuation per pupil (have the

greatest ability to support an educational program).

5. An alternative measure of effort can be defined as the ratio of operating expenditures per pupil to median family income. All other things being equal, the greater the ratio the greater the effort the community is making to provide an educational program. Due to the small number of cases of small nonrural high school districts that data is suspect. However, a comparison of rural and urban school districts does indicate that within like types of school districts rural school districts are making a greater effort to provide an educational program than are urban school districts. Small nonrural school districts seem to be making an effort which is closely aligned with the effort of the urban school districts.
6. Another measure of effort can be defined as the ratio of the number of pupil to the population. All other things being equal, the greater the ratio the greater will be the effort required by the local community to provide a minimum adequate program. Findings of this study do not indicate significant differences between rural and urban and rural and nonrural school districts on this measure of effort.
7. A correlation analysis between operating expenditures per pupil, component property wealth and income measures revealed that the best predictors of operating expenditures per pupil for urban districts was the amount of corporate and industrial property wealth per pupil and/or the amount of residential property wealth per pupil. In rural school districts, the best predictors of operating expenditures per pupil were agricultural and mineral property wealth per pupil and median family income. For small school districts, the best predictor of operating expenditures per pupil was corporate and industrial property wealth per pupil and/or residential property wealth per pupil.
8. Significant differences in the rate of growth among the various components of property wealth has occurred in recent years (Lows, 1988). Within the three year interval 1981 to 1984, commercial and industrial property has increased between 10-15 percent and corporate personal property replacement tax payments have increased by 40 percent; residential property

has increased approximately 4 percent; and agricultural and mineral properties have declined in value by approximately 18 percent.

9. As would be expected, rural school districts have a greater proportion of their property wealth associated with agricultural and mineral properties and a lesser proportion associated with commercial and industrial property. Conversely, urban and small nonrural school districts have larger proportions of their property wealth associated with residential, commercial and industrial property and less proportions associated with agricultural and minerals.

Discussion of Results

The findings of this study have significant implications for for a number of policy decisions. First, this study provides evidence to indicate that although rural and small nonrural schools may be quite similar in many ways they are quite dissimilar in their abilities to access revenues for education and their efforts to support education. Hence, organizations which encompass memberships from both groups must recognize that the development of recommendations for policy decisions must take into consideration those dissimilarities.

Second, property tax rates have been a traditional measure of effort in the provision of an educational program. If one accepts this measure, then this study clearly indicates that urban school districts make a greater effort to support an educational program than do rural school districts. However, alternative measures of effort were present and rural school districts were found to make a greater effort to support an education program if the measure of effort were defined as the ratio of operating expenditures per pupil to median family income. Therefore, rural school districts should be alert to efforts to include a reward for effort provision in state-local finance systems and provide input into the definition of effort.

Third, assessed valuation per pupil has been a traditional measure of wealth used in general state aid formulas. Some states do include an income measure as an additional wealth measure in determining the amount of state monies to be distributed to local school districts. This study provides evidence to suggest that rural school districts have a lower median family income than urban or small nonrural school districts and would most likely gain additional state monies from school aid formulas that include income in the wealth measure.

Fourth, the results of this study lend credence for two-stage resource equalization models of state-local school finance systems (Toenjes, 1986). Toenjes proposed that residential property be taxed at the local school district level and that revenue from non-residential property -- agricultural, commercial, industrial, railroad and mineral -- be taxed at the county level and shared within the county. Proposals similar to that of Toenjes would ameliorate inequities resulting from non-residential component property wealth.

Fifth, the definition of a rural school district as used in this study provides a clear and concise definition which can be easily derived from state reports filed by local school district reports. A number of large computer-readable data were identified and information was accessed by merging these files. This study only scratches the surface of information that can be brought to bear in efforts to describe and improve the condition of rural education.

APPENDIX A

Table 4

Summary Information for Elementary School Districts
Rural, Urban and Small

Variable	Rural	Urban	Small
No. of districts	111	108	142
No. of pupils	19,066	247,050	63,869
No. of buildings	124	655	257
Area in square miles	5,350	1,090	1,480
Population (1980)	170,133	2,577,830	732,280

Table 5

Summary information for High School Districts
Rural, Urban and Small

Variable	Rural	Urban	Small
No. of districts	36	71	3
No. of pupils	9,257	222,043	722
No. of buildings	35	153	3
Area in square miles	4,254	2,461	223
Population (1980)	180,030	4,414,990	11,692

Table 6

Summary Information for Unit School Districts
Rural, Urban and Small

Variable	Rural	Urban	Small
No. of districts	223	37	25
No. of pupils	145,724	984,648	22,802
No. of buildings	703	1,666	89
Area in square miles	26,201	2,065	1,679
Population (1980)	886,112	7,462,830	182,980

Table 7

Summary of T-Tests for Elementary School Districts
Rural (n=111) v. Urban (n=108)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Urban	2.3140	0.46		
Rural	1.9262	0.36	6.95	<.001
Number of Buildings (NSID)				
Urban	6.06	3.71		
Rural	1.12	0.42	13.78	<.001
Area of District in Square Miles (PAOD)				
Urban	10.09	8.04		
Rural	48.20	30.04	-12.90	<.001
Per Capita Tuition Charge (PCTC)				
Urban	$3,045	801.03		
Rural	$2,551	775.64	4.64	<.001
Operating Expenditures Per Pupil (OEPP)				
Urban	$3,347	811.66		
Rural	$2,947	766.06	3.75	<.001

Table 7 (cont.)

Median Household Income - 1980 (MHI)				
Urban	$25,768	6414.71		
Rural	$17,969	3523.86	11.07	<.001
Median Family Income - 1980 (MFI)				
Urban	$28,461	6706.94		
Rural	$20,186	3358.63	11.45	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Urban	$92,331	50812.39		
Rural	$80,958	46283.36	1.73	-----
Effort2 - (OEPP/MFI)				
Urban	0.1211	0.034		
Rural	0.1503	0.048	-5.13	<.001
Effort6 - (ADA/POP80)				
Urban	0.1111	0.093		
Rural	0.1202	0.031	-0.96	-----

Table 8

Summary of T-Tests for High School Districts
Rural (n=36) v. Urban (n=71)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Urban	1.8398	0.32		
Rural	1.6931	0.32	2.21	<.02
Number of Buildings (NSID)				
Urban	2.15	1.55		
Rural	0.97	0.17	6.37	<.001
Area of District in Square Miles (PAOD)				
Urban	34.66	24.98		
Rural	118.16	77.64	-6.29	<.001
Per Capita Tuition Charge (PCTC)				
Urban	$4,514	954.84		
Rural	$3,874	1140.04	3.07	0.003
Operating Expenditures Per Pupil (OEPP)				
Urban	$4,833	987.77		
Rural	$4,245	1208.61	2.70	0.008

Table 8 (cont.)

Median Household Income - 1980 (MHI)				
Urban	$24,907	5033.15		
Rural	$16,566	2874.50	10.89	<.001
Median Family Income - 1980 (MFI)				
Urban	$27,847	5565.63		
Rural	$19,152	2681.28	10.90	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Urban	$139,664	55823.77		
Rural	$110,370	44927.76	2.73	0.007
Effort2 - (QEPP/MFI)				
Urban	0.1768	0.038		
Rural	0.2251	0.073	-3.73	<.001
Effort6 - (ADA/POP80)				
Urban	0.0518	0.011		
Rural	0.0542	0.008	-1.17	-----

Table 9

Summary of T-Tests for Unit School Districts
Rural (n=237) v. Urban (n=39)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Urban	3.4153	0.40		
Rural	2.9336	0.38	7.05	<.001
Number of Buildings (NSID)				
Urban	45.03	134.05		
Rural	3.15	1.20	1.90	0.065
Area of District in Square Miles (PAOD)				
Urban	55.82	56.93		
Rural	117.49	58.43	-5.97	<.001
Per Capita Tuition Charge (PCTC)				
Urban	$2,841	488.39		
Rural	$2,527	412.96	4.17	<.001
Operating Expenditures Per Pupil (OEPP)				
Urban	$3,202	540.18		
Rural	$2,907	427.37	3.73	<.001

Table 9 (cont.)

Median Household Income - 1980 (MHI)				
Urban	$22,788	5101.62		
Rural	$16,905	3119.43	6.72	<.001
Median Family Income - 1980 (MFI)				
Urban	$25,762	4604.65		
Rural	$19,288	2850.60	8.18	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Urban	$46,850	15177.54		
Rural	$46,432	18073.28	0.13	-----
Effort2 - (OEPP/MFI)				
Urban	0.1277	0.032		
Rural	0.1544	0.034	-4.37	<.001
Effort6 - (ADA/POP80)				
Urban	0.1640	0.047		
Rural	0.1672	0.023	-0.40	-----

Table 10

Summary of T-Tests for Elementary School Districts
Rural (n=111) v. Small (n=142)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Small	1.8640	0.39		
Rural	1.9262	0.36	-1.31	-----
Number of Buildings (NSID)				
Small	1.81	0.96		
Rural	1.12	0.42	7.09	<.001
Area of District in Square Miles (PAOD)				
Small	10.42	13.60		
Rural	48.20	30.04	-12.29	<.001
Per Capita Tuition Charge (PCTC)				
Small	$3,236	1353.65		
Rural	$2,551	775.64	5.06	<.001
Operating Expenditures Per Pupil (OEPP)				
Small	$3,484	1298.10		
Rural	$2,947	766.06	4.10	<.001

Table 10 (cont.)

Median Household Income - 1980 (MHI)				
Small	$24,241	7671.68		
Rural	$17,969	3523.86	8.62	<.001
	Table 10 (cont.)			
Median Family Income - 1980 (MFI)				
Small	$26,832	7912.96		
Rural	$20,186	3358.63	9.00	<.001
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Small	$140,180	151260.90		
Rural	$80,958	46283.36	4.41	<.001
Effort2 - (OEPP/MFI)				
Small	0.1343	0.052		
Rural	0.1503	0.048	-2.51	<.012
Effort6 - (ADA/POP80)				
Small	0.0977	0.034		
Rural	0.1202	0.031	-5.41	<.001

Table 11

Summary of T-Tests for High School Districts
Rural (n=36) v. Small (n=3)

(Sample of small high schools is too small)
(for comparative analysis)

Table 12

Summary of T-Tests for Unit School Districts
Rural (n=237) v. Small (n=39)

Group	Mean	S.D.	t	p
General State Aid Operating Tax Rate (GSAOTR)				
Small	2.6622	0.50		
Rural	2.9336	0.38	-3.26	<.001
Number of Buildings (NSID)				
Small	3.56	1.19		
Rural	3.15	1.20	1.61	-----
Area of District in Square Miles (PAOD)				
Small	67.16	44.67		
Rural	117.49	58.43	-4.17	<.001
Per Capita Tuition Charge (PCTC)				
Small	$2,789	815.47		
Rural	$2,527	412.96	1.58	-----
Operating Expenditures Per Pupil (OEPP)				
Small	$3,090	731.08		
Rural	$2,907	427.37	1.22	-----

Table 12 (cont.)

Median Household Income - 1980 (MHI)				
Small	$17,905	3256.56		
Rural	$16,905	3119.43	1.51	-----
Median Family Income - 1980 (MFI)				
Small	$20,746	2792.13		
Rural	$19,288	2850.60	2.43	<.019
General State Aid Assessed Valuation Per Pupil (GSAVPP)				
Small	$68,221	83235.69		
Rural	$46,432	18073.28	1.30	-----
Effort2 - (OEPP/MFI)				
Small	0.1513	0.040		
Rural	0.1544	0.034	-0.42	-----
Effort6 - (ADA/POP80)				
Small	0.1605	0.032		
Rural	0.1672	0.023	-1.32	-----

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